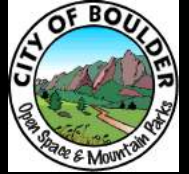


CAMP Mobility Snapshot

CWG #2 – October 2016



Snapshot Outline

1. Data Overview
2. Key Data Findings



CAMP Snapshot

Question:

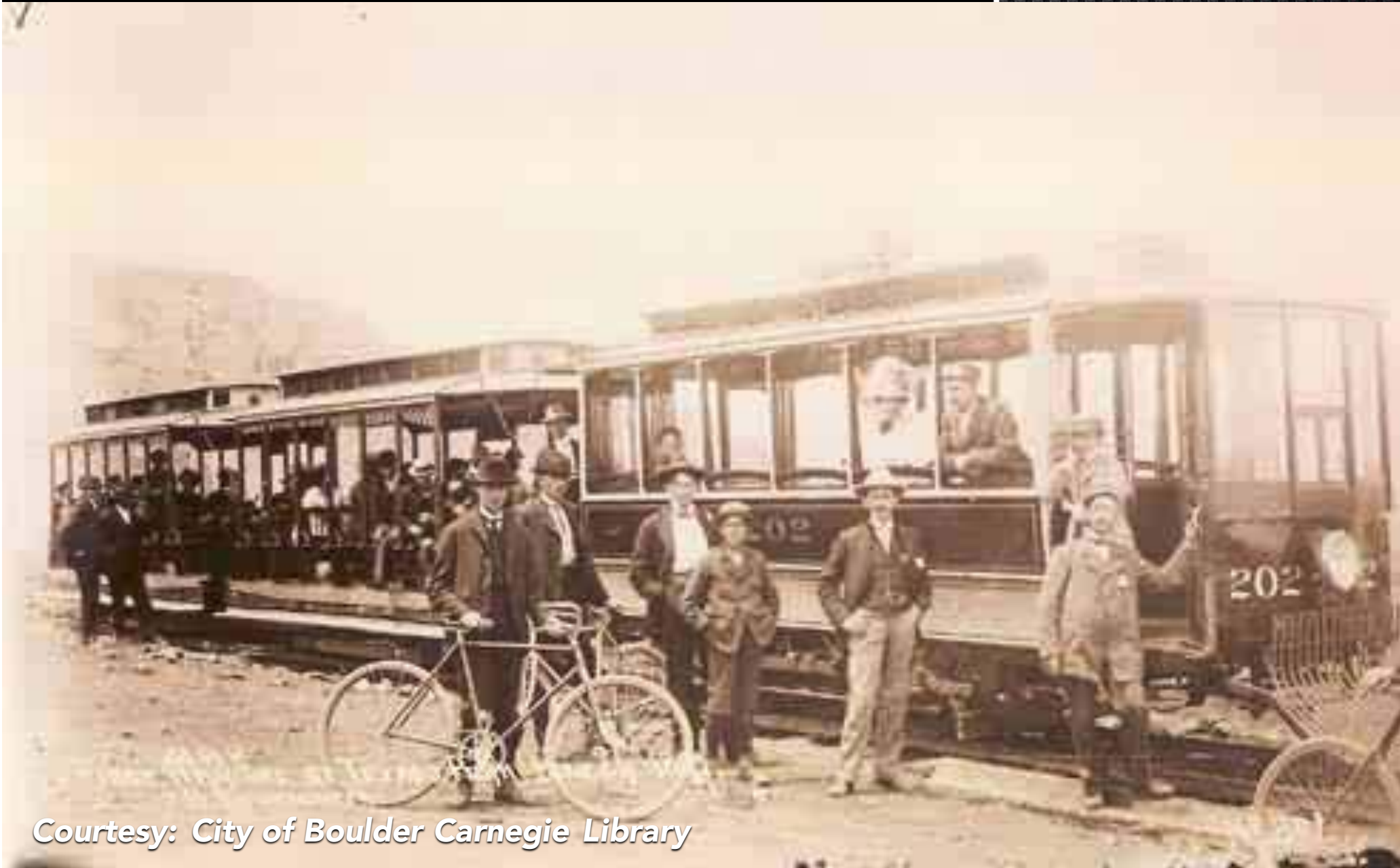
Are Chautauqua's parking and mobility demands changing?

Answer:

Yes, data indicates dynamic changes are occurring.



1. Data Overview



Courtesy: City of Boulder Carnegie Library

Arrival Data

- 5,000 unique signals studied with Acyclica readers at 6 location over 2 days
 - Chautauqua Green
 - Baseline and 8th
 - 9th/Canyon
 - 28th/Colorado
 - Broadway/Table Mesa
 - Broadway/Baseline
- 783 signal matches during analysis



Traffic/Speed Data

- 11 locations studied
 - Cascade, 6th, 7th, 8th, 9th, 12th, Grant, Kinnikinic, Baseline east, Baseline west, Columbine
- At least 7 days studied at each location
- Weekdays and weekends studied
- Over 1,000 total hours of data analyzed



Parking Data

- 3,029 spaces studied for utilization and duration
- Studied leasehold and adjacent neighborhoods
- 11 different days studied
- 8 hours per day walking and city LPR car
- 125 miles walked
- 360,000 data points analyzed





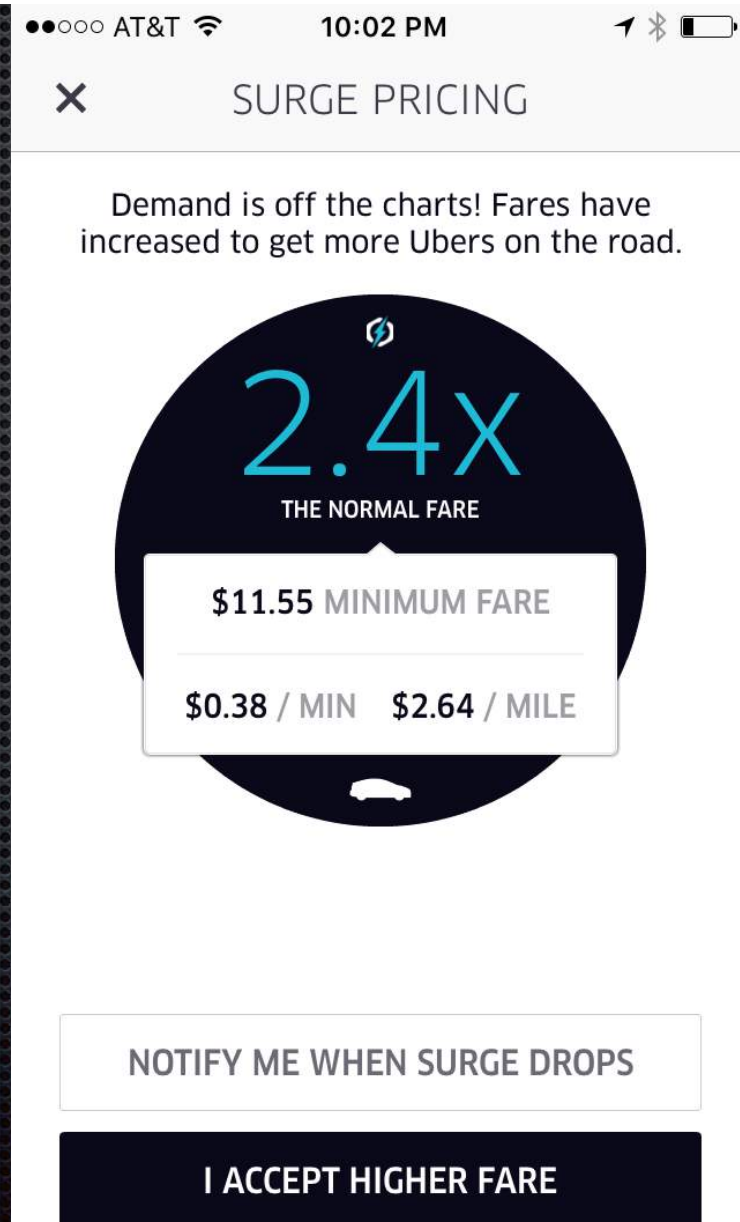
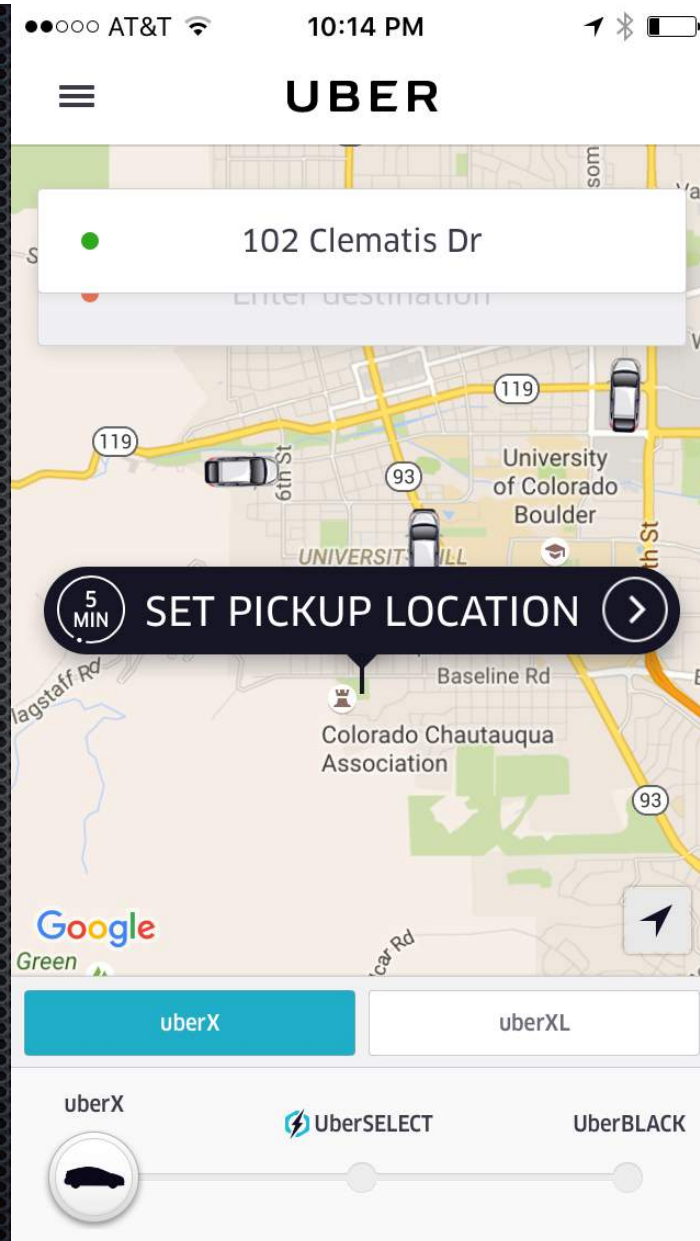
People on Bikes

- **Parked bikes studied at formal and informal locations over 9 days**
- **Studied possible routes, challenges and opportunities**
- **Approximate 460 parked bikes analyzed**



Ridesharing

- 2 events studied at beginning and end of the performance
- 3 days of pickup observations in green, ranger lot and academic hall



Shared Streets

- 4 hours of video on lower and upper Kinnikinic
- 2 different days of data collection
- Approximately 86 people studied using the shared street



RRC Site-wide Survey

- **Conducted site-wide**
- **1,491 respondents from June to September 2016**
- **Results comparable to 2011 survey**
- **+/-2.5 percent calculated margin of error**

Chautauqua Area Visitor Survey
Summer 2016
Final Results

September 2016



RRC
ASSOCIATES

Prepared for:
City of Boulder
Community Vitality

Prepared by:
RRC Associates, Inc.
4770 Baseline Road, Ste 360
Boulder, CO 80303
303/449-6558

www.rrcassociates.com

A lot more...

EV Charging



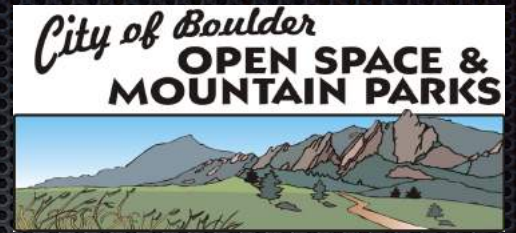
HOP 2



Segway



OSMP Data Collection



- Automated infrared visitation counters
- Intercept survey
- 8 data collection sites
- Trending data
- 122 days Aug through Nov



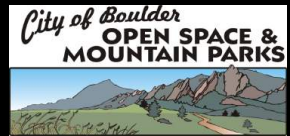




2. Key Data Findings



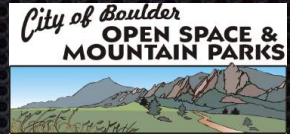
OSMP Chautauqua Study Area: 2004 and 2015 Monthly Visitation Estimates



**Total number of Chautauqua study area visits by month, for
2004 and 2015**

| Month | 2004 Visits | 2015 Visits | % Increase |
|------------------|--------------------|--------------------|-----------------------|
| August | 42,000 | 104,000 | 147% |
| September | 36,000 | 81,000 | 126% |
| October | 35,000 | 74,000 | 112% |
| November | 19,000 | 54,000 | 185% |
| Total | 132,000 | 313,000 | 138% |

OSMP Chautauqua Study Area: 2015 Busiest Days Observed each Month



August ~ 5,000

September ~ 5,100

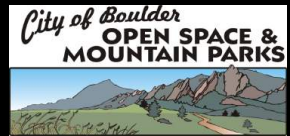
October ~ 4,700

November ~ 4,300

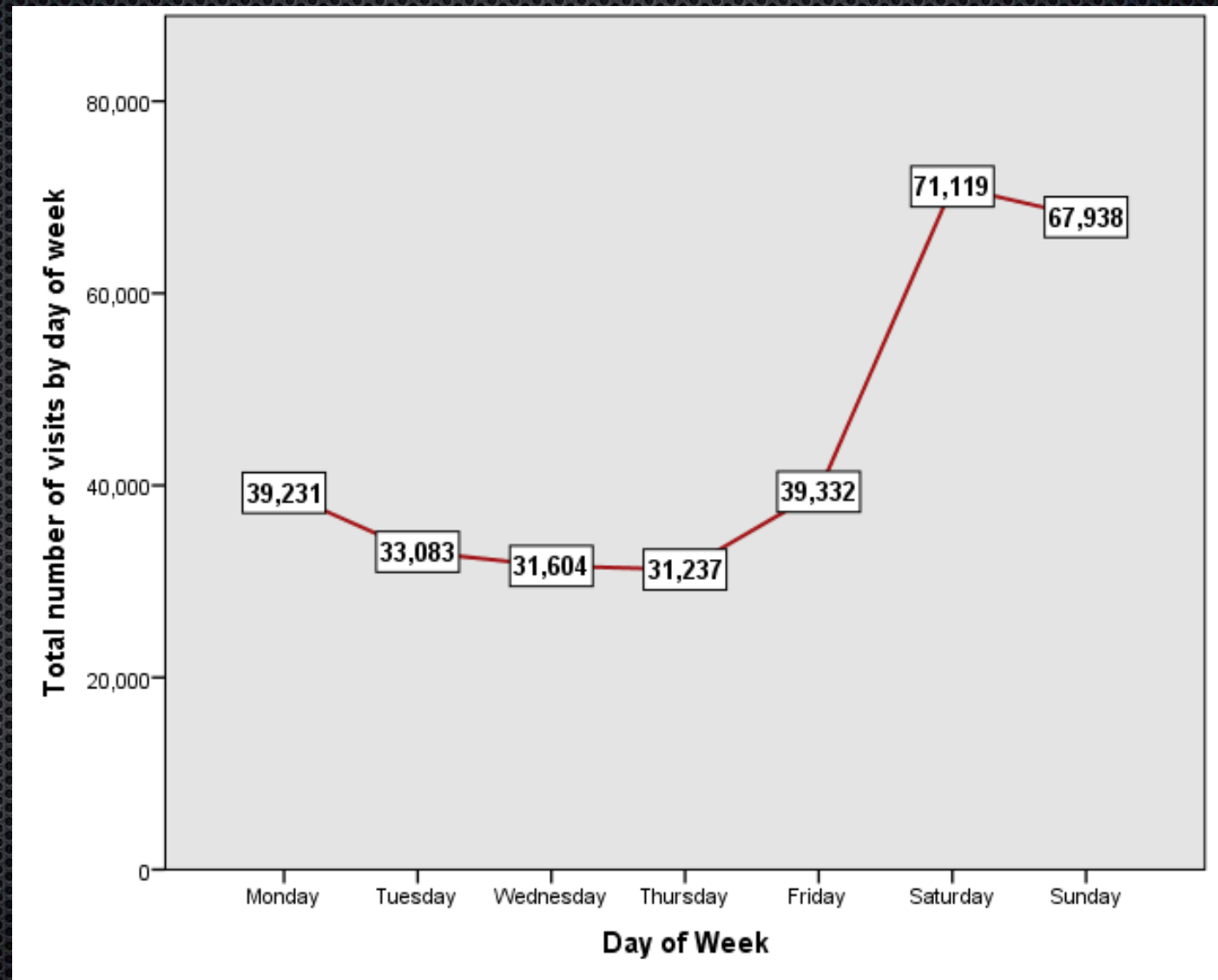
Mean visits per
day August to
November = **2,570**



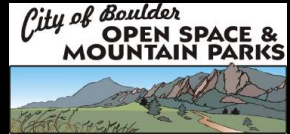
OSMP Chautauqua Study Area: 2015 Visitation by Day of the Week



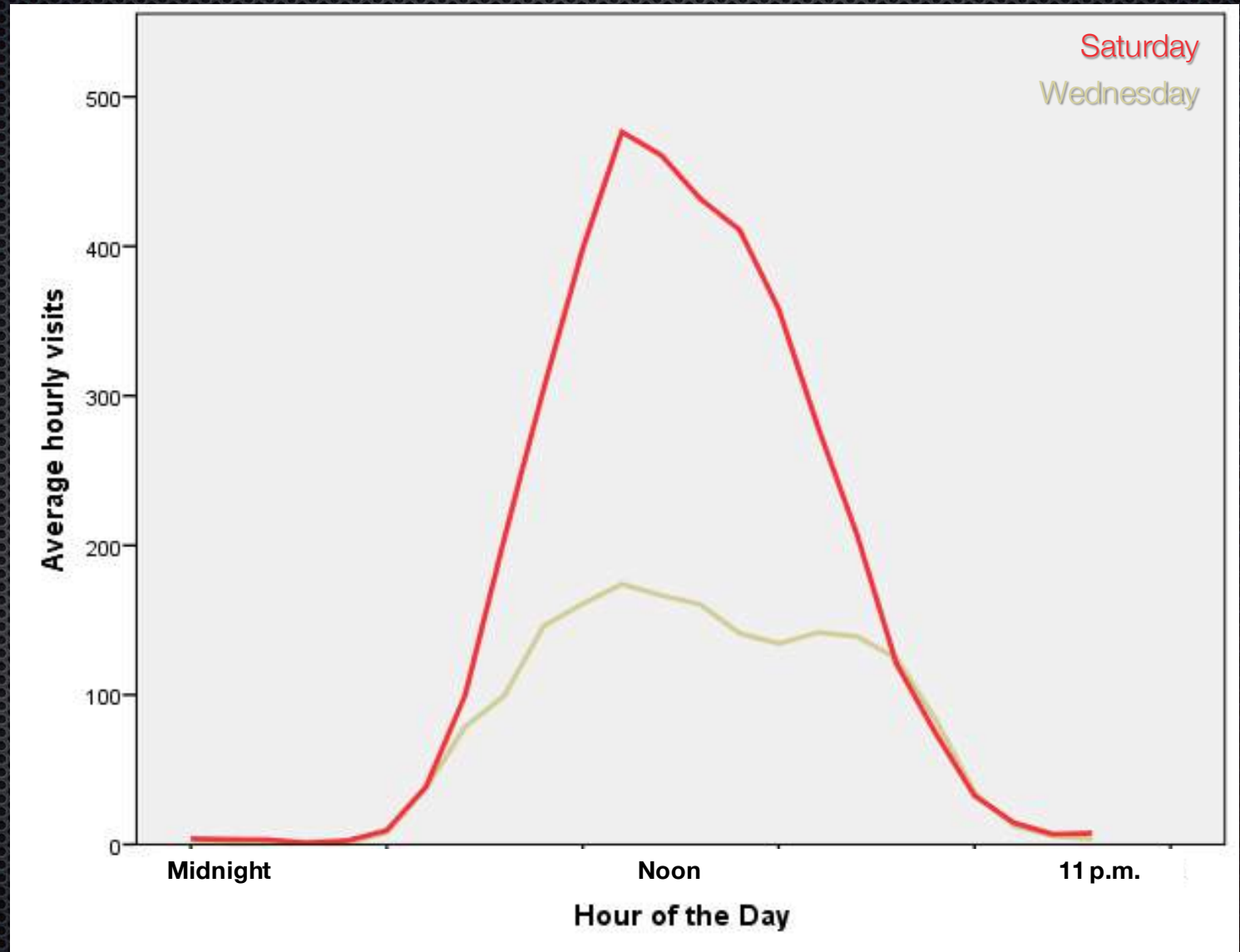
Number of
visits is greater
on **Saturday** and
Sunday



OSMP Chautauqua Study Area: 2015 Average Hourly Visitation on Wed/Sat

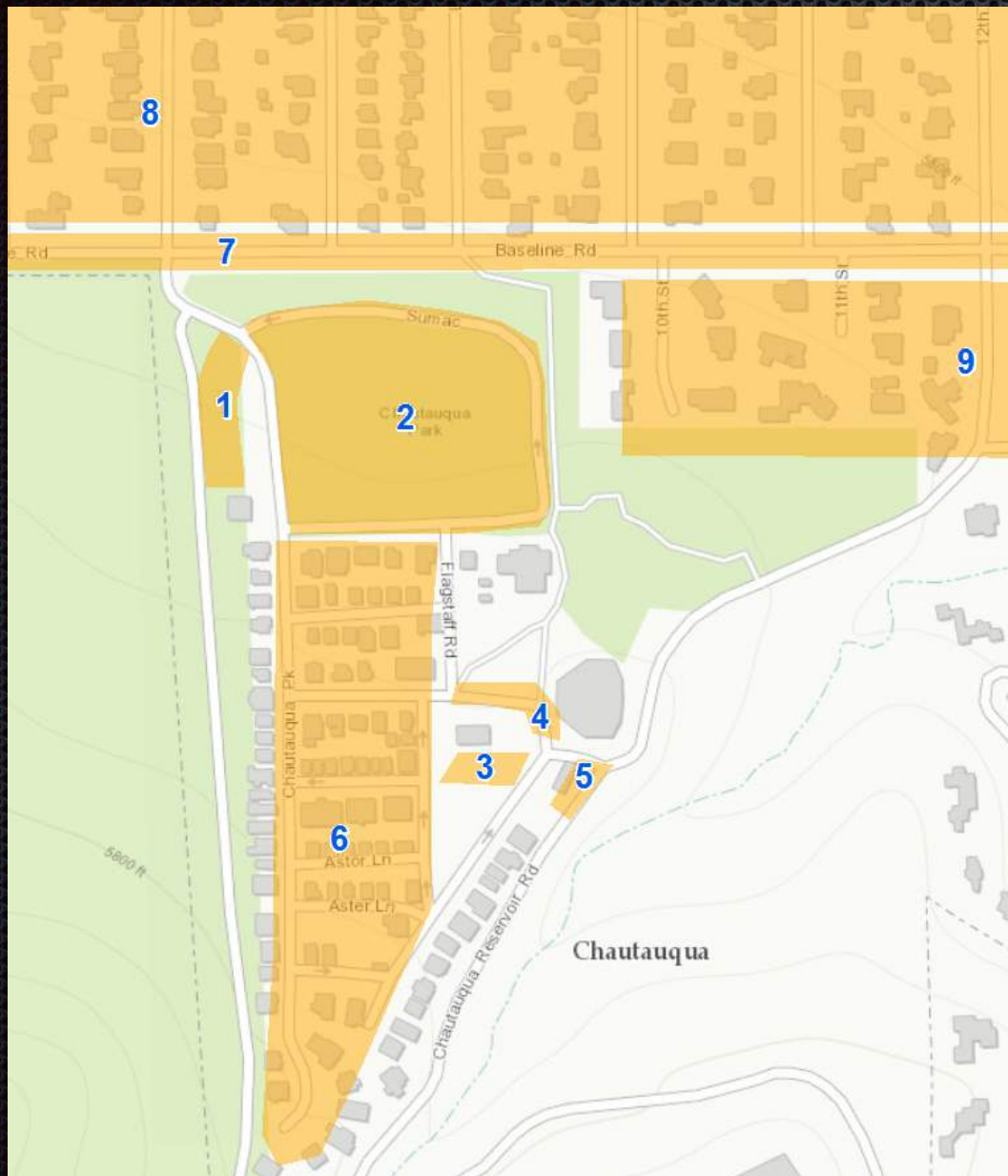


Number of visits is **greatest mid day**, peaking between 11 a.m. and noon

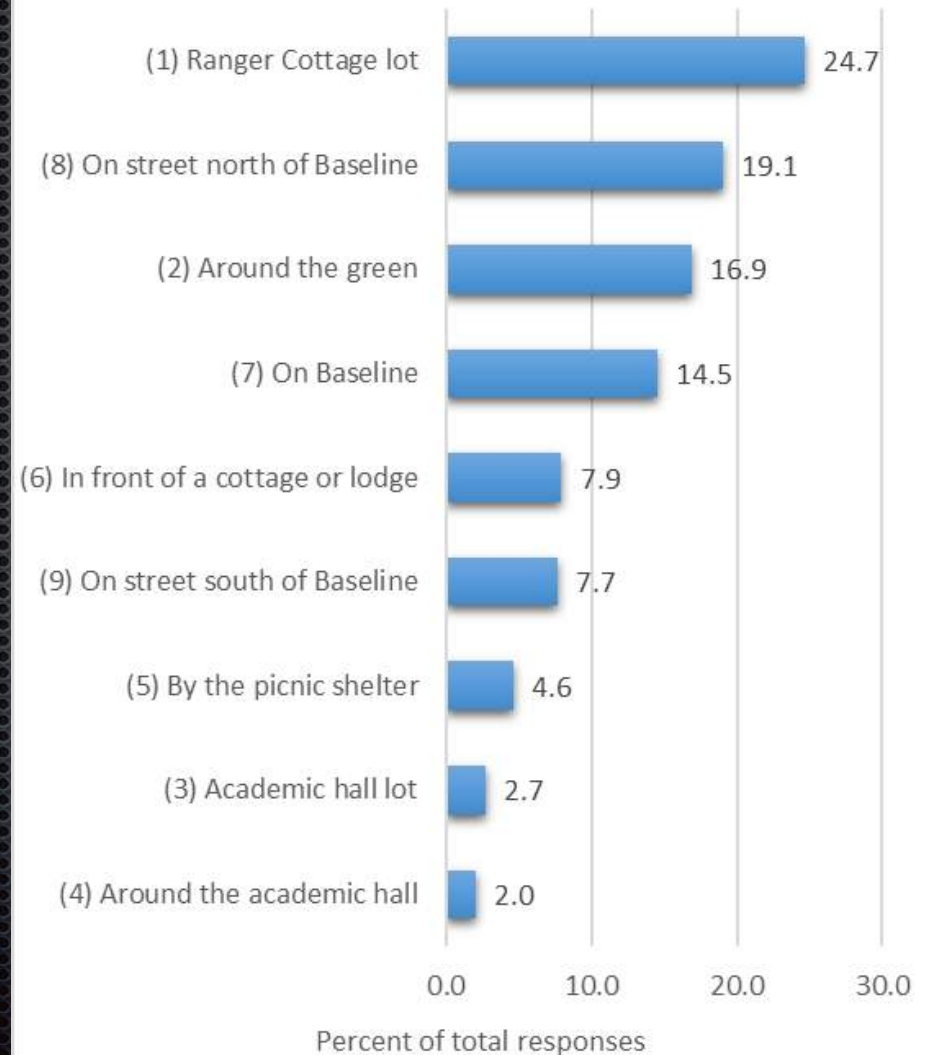


OSMP- Parking by Area

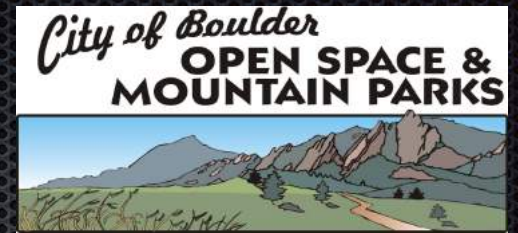
City of Boulder
**OPEN SPACE &
MOUNTAIN PARKS**



Parking by Area



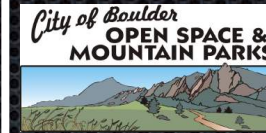
OSMP- Parking Difficulty



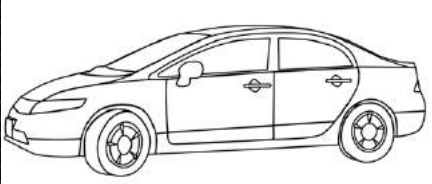


~70% reported parking as NEUTRAL to VERY EASY

| <u>Very Difficult</u> | <u>Difficult</u> | <u>Neutral</u> | <u>Easy</u> | <u>Very Easy</u> |
|-----------------------|------------------|----------------|-------------|------------------|
| 6% | 25% | 23% | 29% | 17% |

2016 Mode of Arrival Results



& RRC

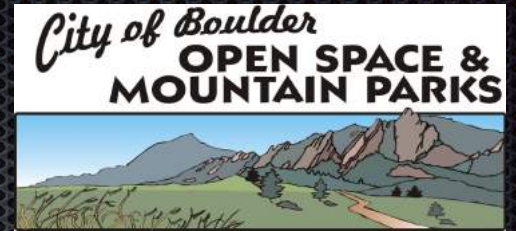
| | OSMP survey | RRC survey |
|--|----------------|---------------------|
| Automobile  | ~ 75% ~ 57% | ~ 85% 70 to 90%* |
| Walk  | ~ 22% ~ 33% | ~ 6% 3 to 21%* |
| Bike  | ~ 1.5% ~ 4% | ~ 2% 1 to 3%* |

**White are
all survey
respondents**

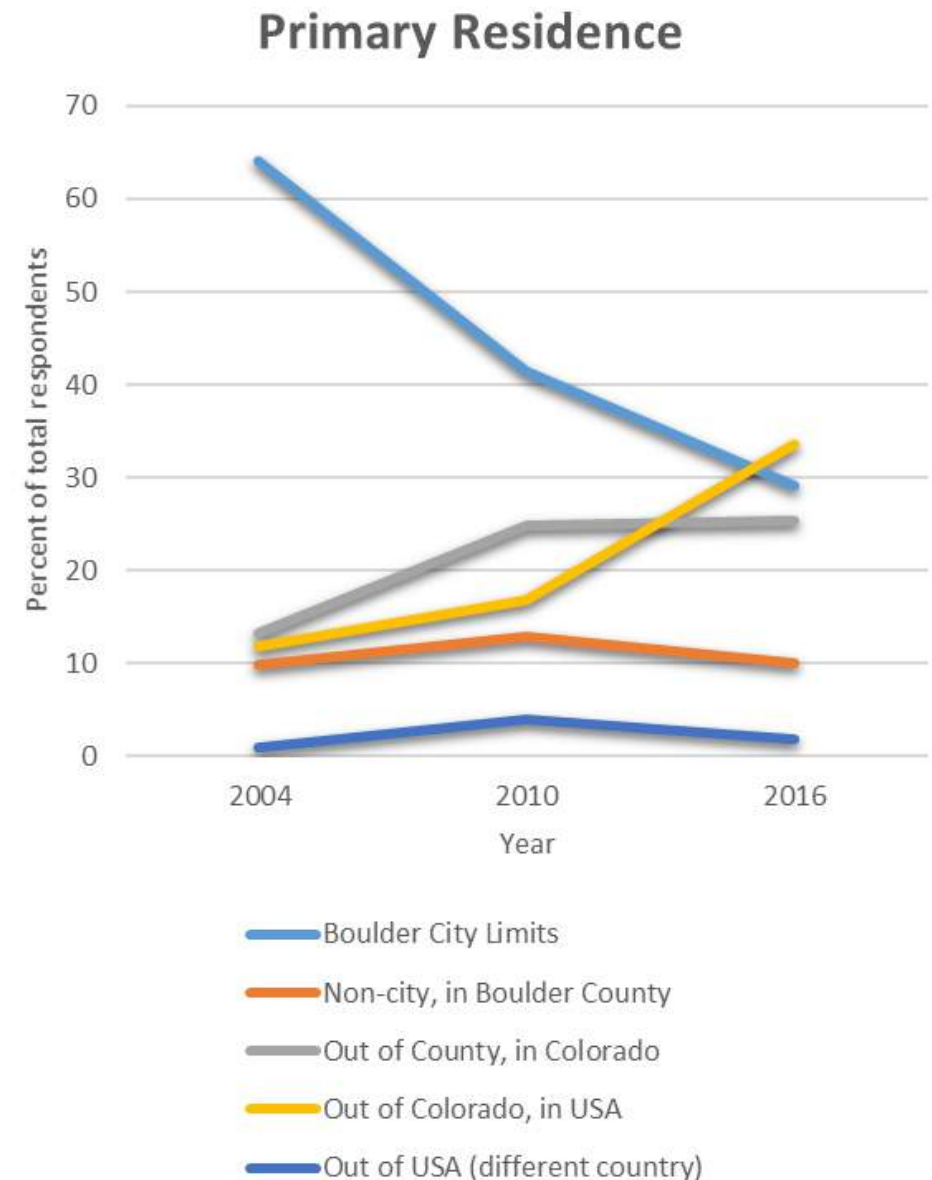
**Blue are
Boulder
residents**

*ranges vary based on
location of Boulder
residents

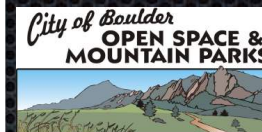
OSMP- Primary Residence



- Percentages have changed as overall visitation has increased
- Largest growth from out-of-state
- Percent City of Boulder residents has decreased



2016 Residency Results



& RRC



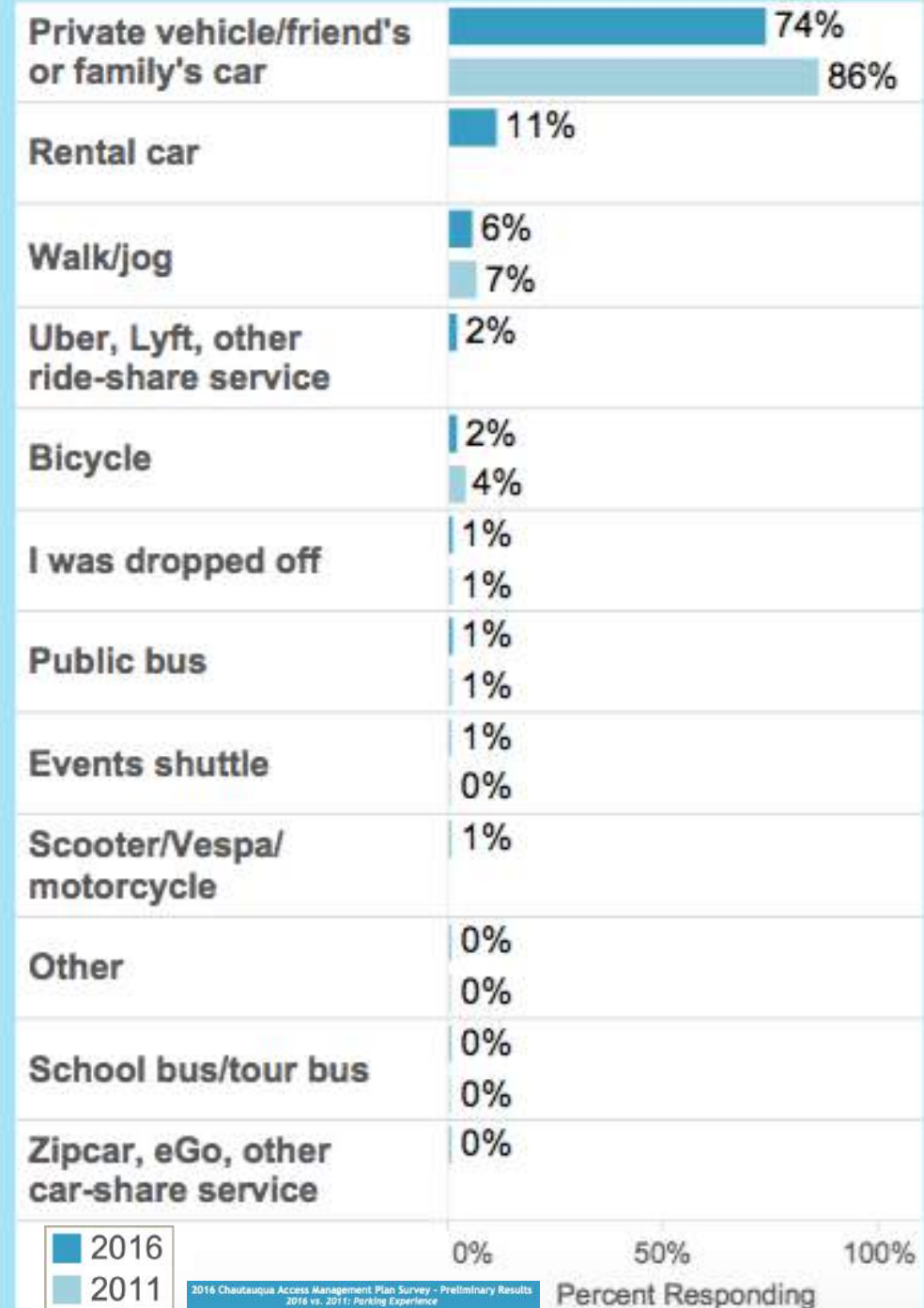
| | OSMP survey | RRC survey |
|-------------------------------|-------------|------------|
| City of Boulder Residents | ~ 29 % | ~ 38% |
| Non City of Boulder Residents | ~ 71 % | ~ 62 % |

Arrival Data

Summer 2016 – Intercept Survey

- 85% of people arrive at Chautauqua with an automobile
- 2% of people ridesharing and bicycling
- Moderate changes between 2011 and 2016

What mode of transportation did you use? - by Year



Arrival Points

Summer 2016 – Intercept Survey

Grant
Entrance

81%

King's Gate
Entrance

8%

12th Street
Entrance

8%

Mesa Trail

1%

2% other

Baseline Rd

7th St

8th St

9th St

9th St

In Pl

10th St

10th St

11th St

13th St

Columbine Av

Chautauqua Res Rd

Clematis Dr

Gaillardia Ln

Morning Glory Dr

Primrose Rd

Astor Ln

Lupine Ln

Goldenrod Dr

Bogges Cr

Kinnikinic Rd

Mariposa Av

13th St

Bluebell Av

Bellevue Dr



0 155 310 620 Feet

Boulder Residents

Summer 2016 – Intercept Survey Boulder Residents

Boulder residents indicated they drive 2-4 miles to Chautauqua a few days a week and find parking in Green, Ranger Lot, or Baseline Road

- **70% of nearby neighborhood respondents drive up**
- **89% of citywide respondents drive up**
- **57% CU/Naropa student respondents drive up**



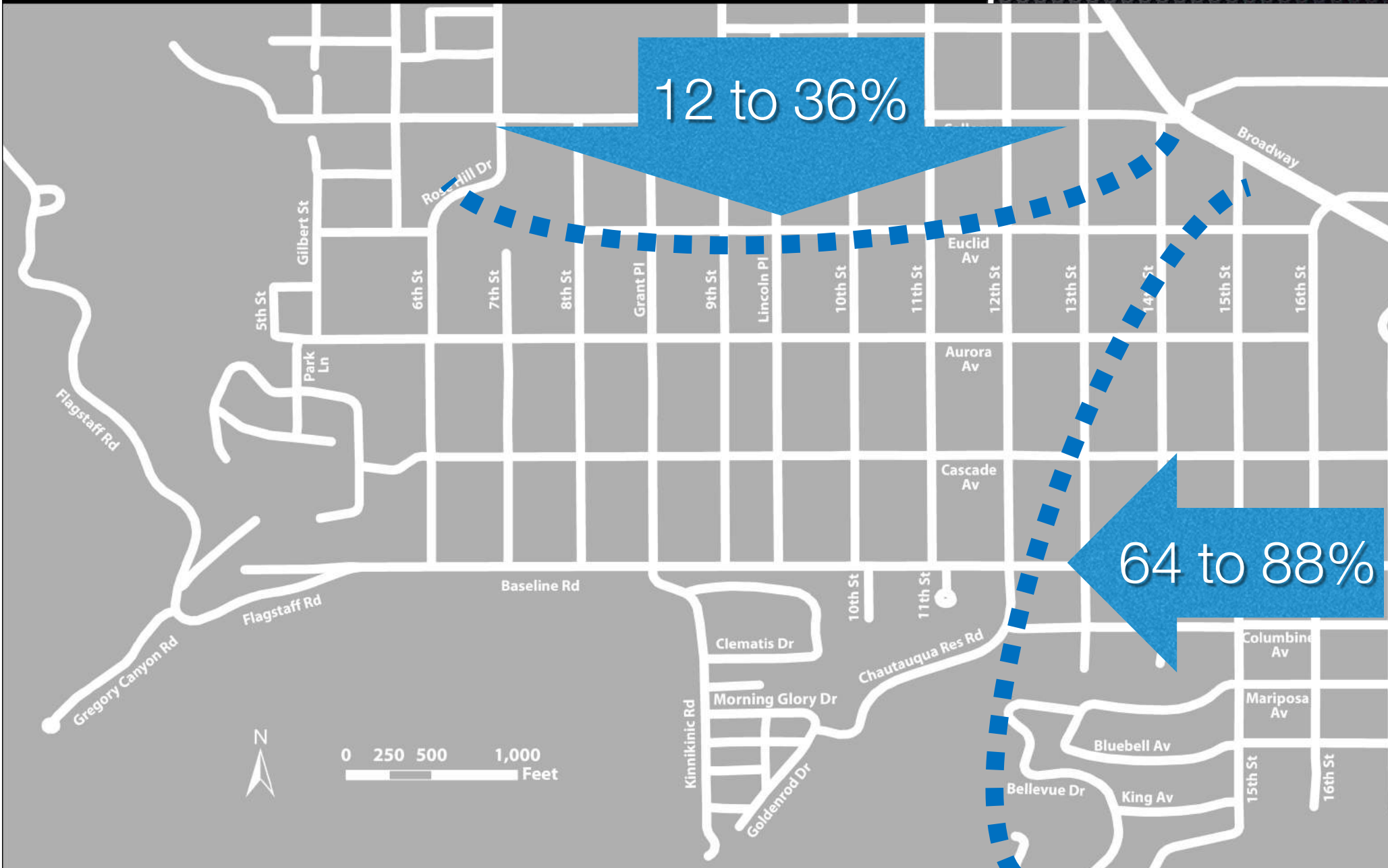
Acyclica Data

Approximate
50%
capture
rate



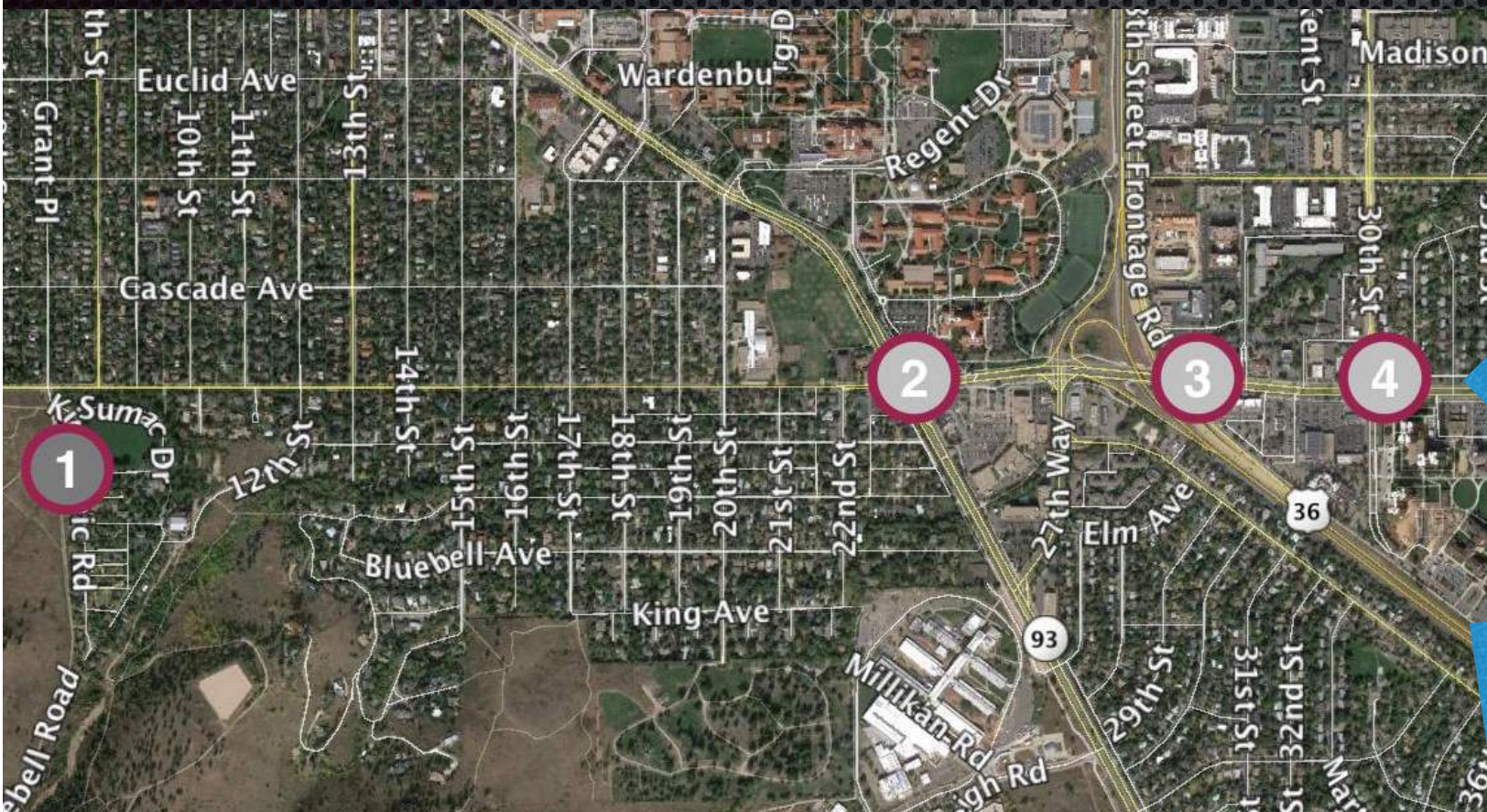
Acyclica Data

Summer 2016 – Acyclica Readers (420 sample)



Acyclica Data

Summer 2016 – Acyclica Readers (280 sample)



18 to 34%

66 to 82%

Acyclica Data

Weekday 2016 – Acyclica Readers



19% Drive by 500
City parking spaces



67% Drive by 500
CU parking spaces



14% Drive by 1,000
RTD parking spaces



Google earth

Acyclica Data

Saturday Concert Day 2016 – Acyclica Readers



**20% Drive by 500
City parking spaces**



**56% Drive by 500
CU parking spaces**



**24% Drive by 1,000
RTD parking spaces**

Google earth



**27th WAY RTD
PARK-N-RIDE
SOUTH OF
BASELINE**

Average Weekday Traffic

Weekday Summer 2016 – 3 days at each location



Average Saturday Traffic

Saturday Summer 2016 – 1 day at each location



Speed Data (MPH)

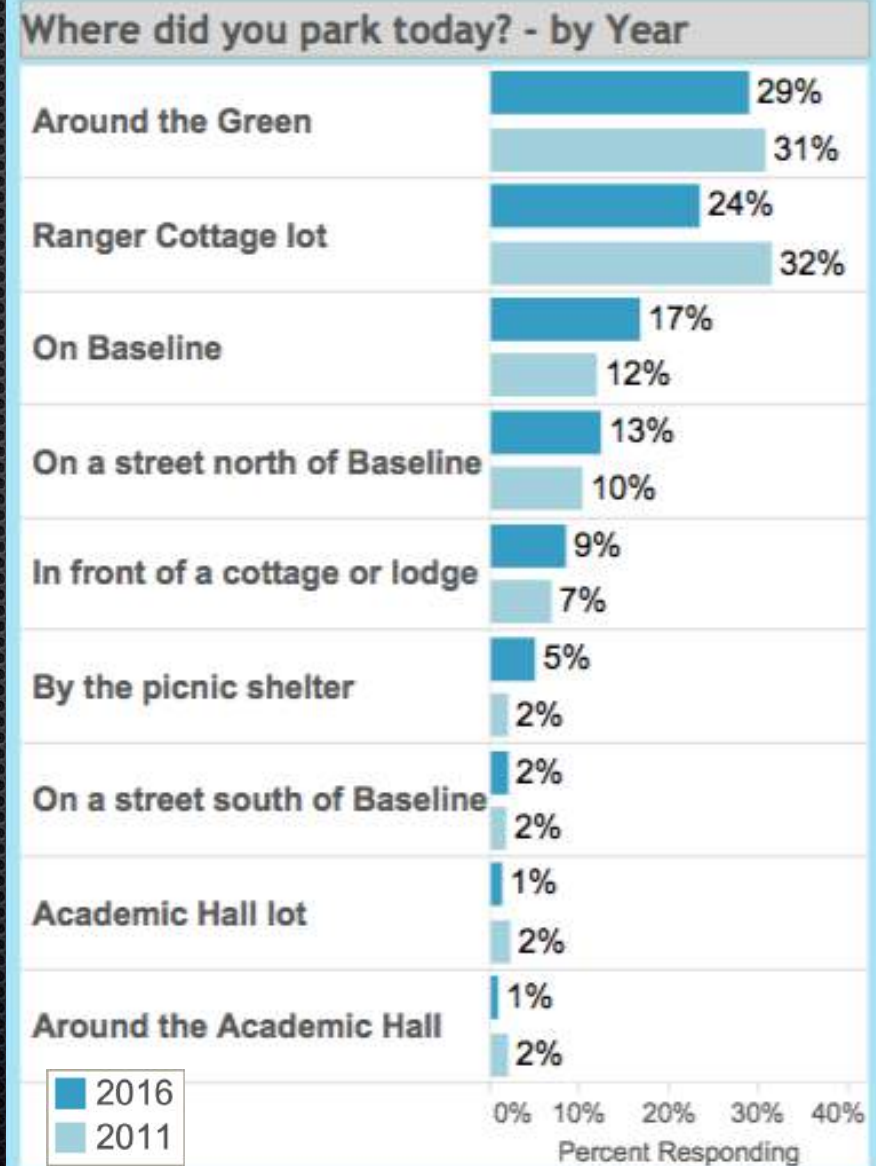
Summer 2016 – 85th Percentile over 4 days



Parking Location

Summer 2016 – Intercept Survey ALL responses

- **53% parking around Green or Ranger lot**
- **15% parking in non CCA neighborhoods**
- **9% parking in front of a cottage**

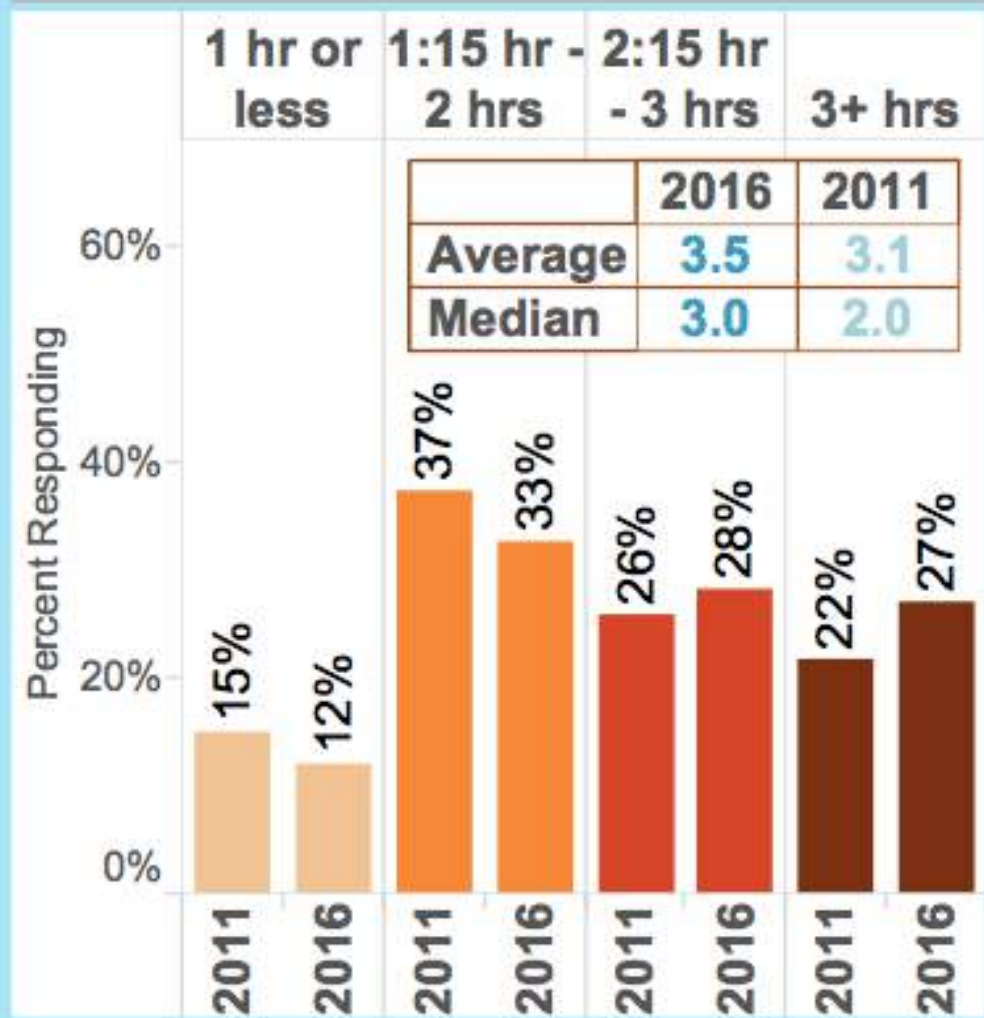


Parking Duration

Summer 2016 – Intercept Survey ALL responses

- Typical stay is now closer to 3 hours
- However 46% visiting for less than 2 hours

How long will you be here today? - by Year



Parking Duration

Summer 2016 – 11 days of 8 hour field study

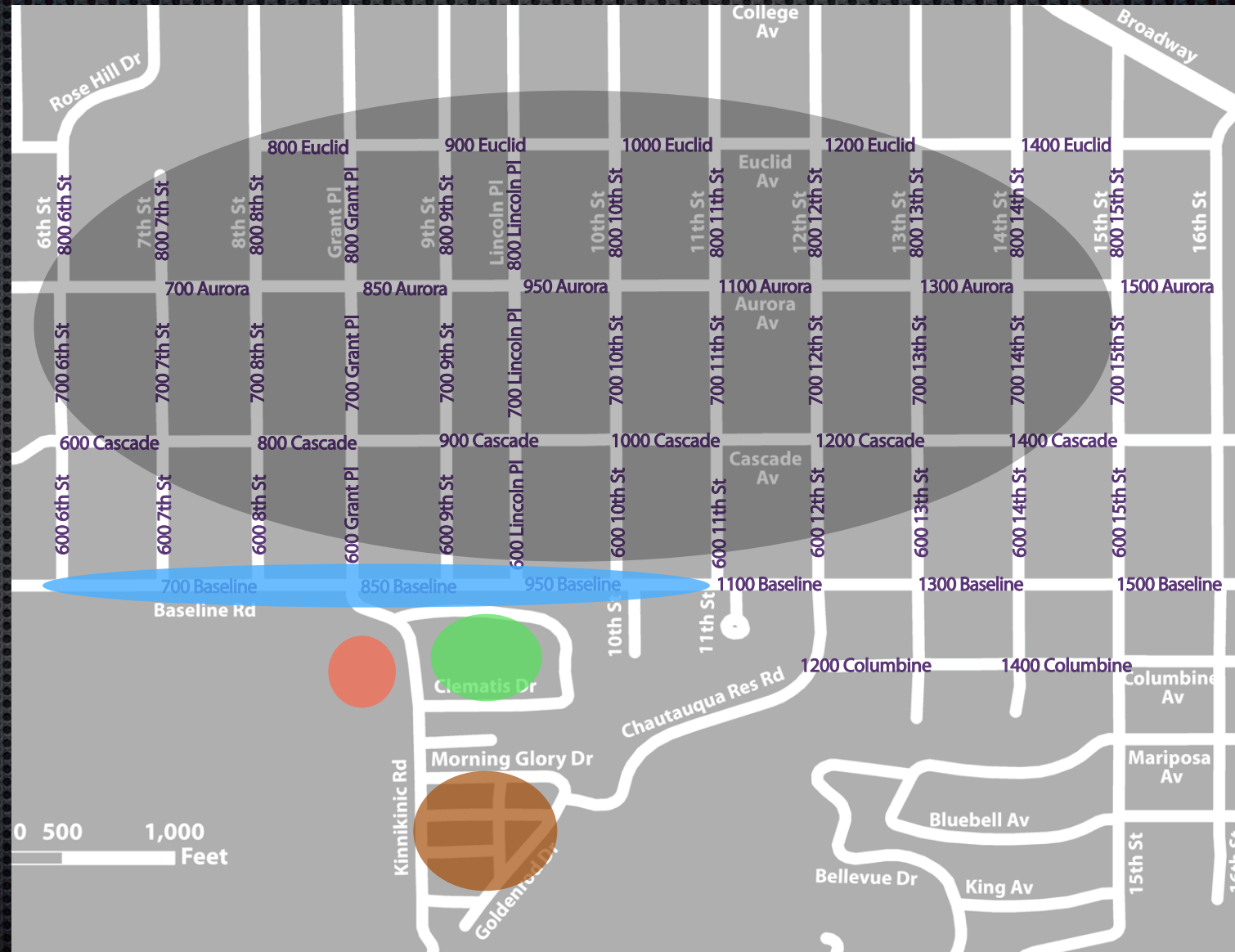
North
Neighborhood
2 to 3 Hours

Baseline
1 to 2 Hours

Ranger Lot
2 to 3 Hours

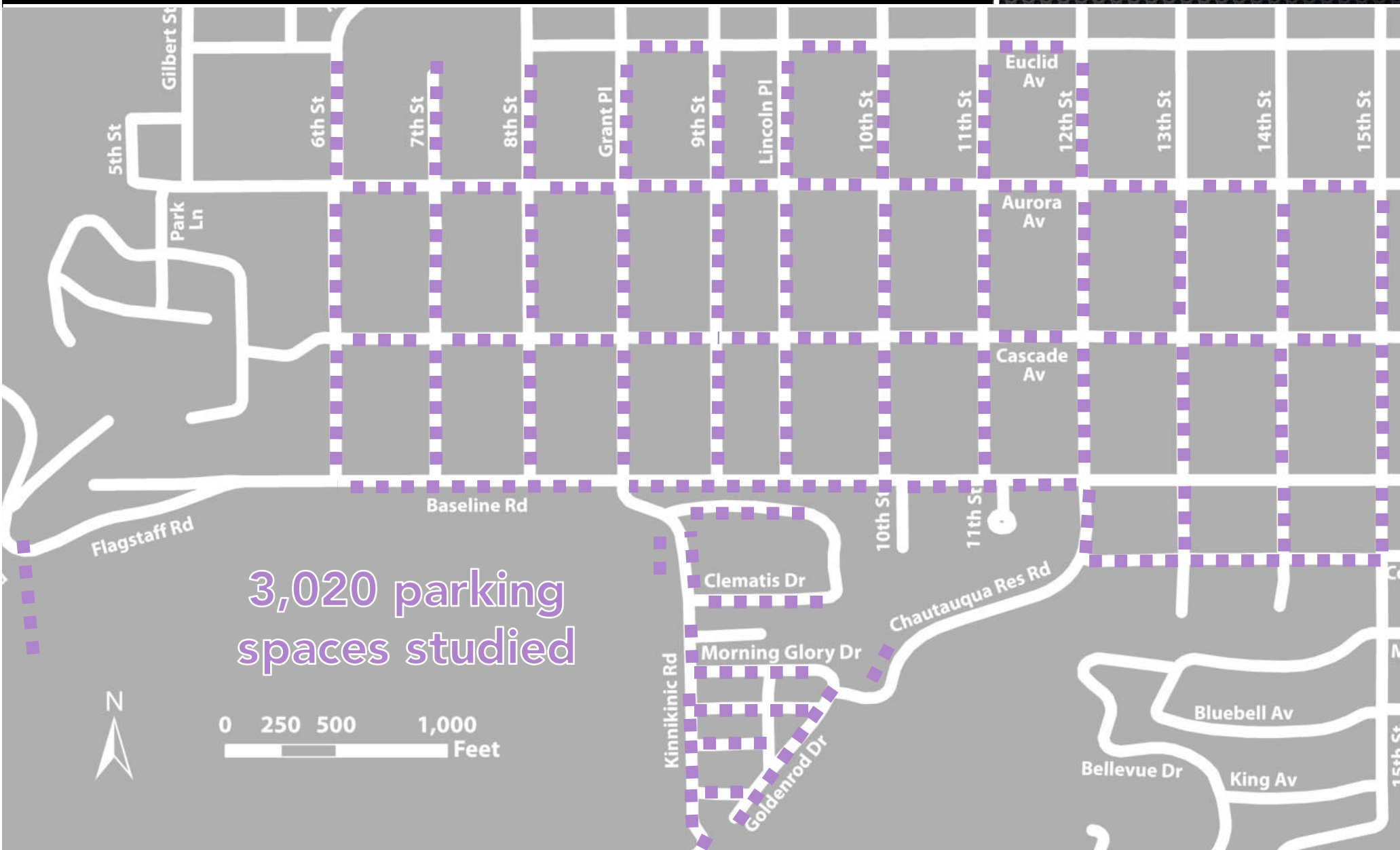
Green
2 to 3 Hours

CCA Cottages
3 to 4 Hours



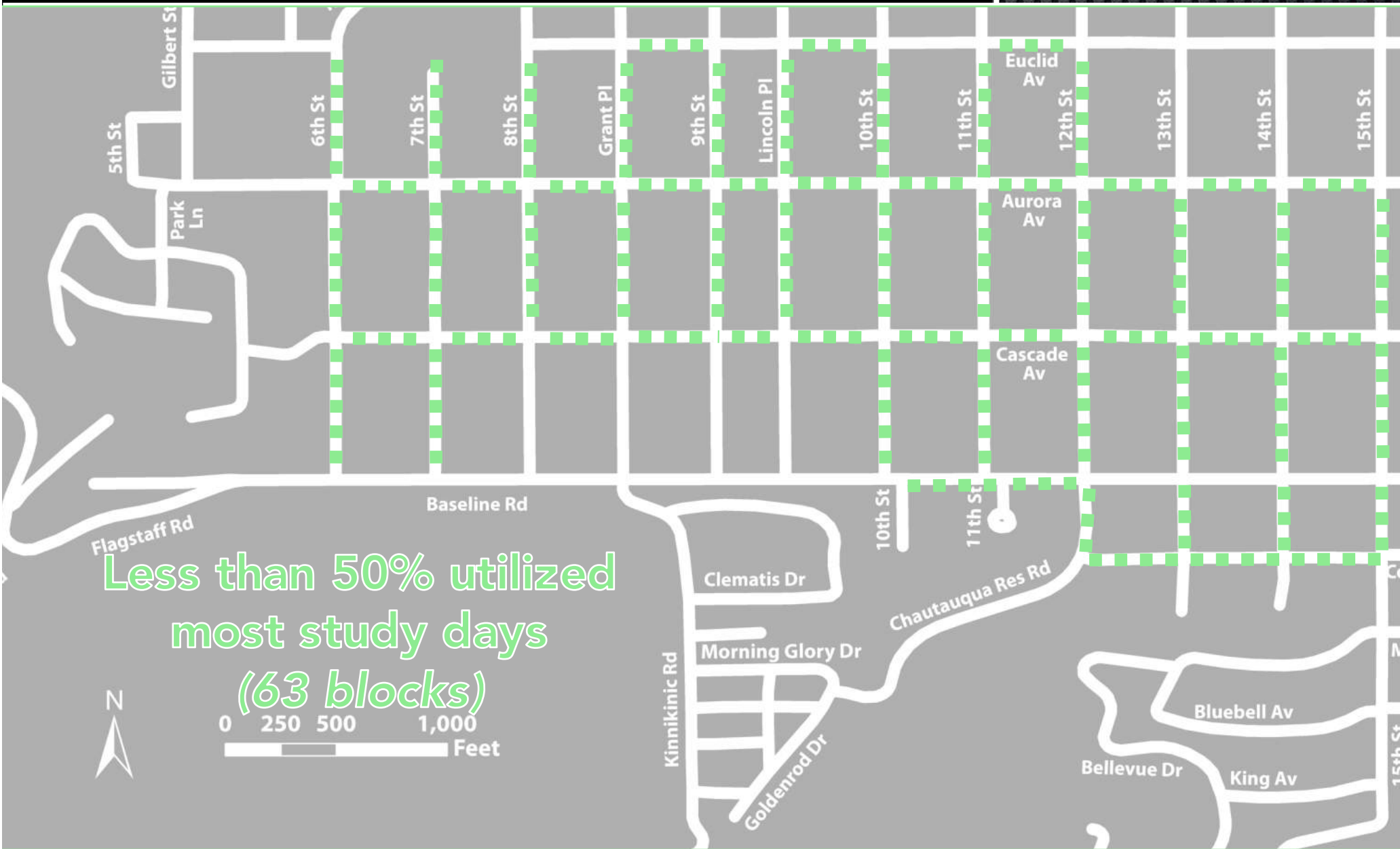
Parking Study Results

Summer 2016 – 11 days of 8 hour field study



Parking Study Results

Summer 2016 – 11 days of 8 hour field study



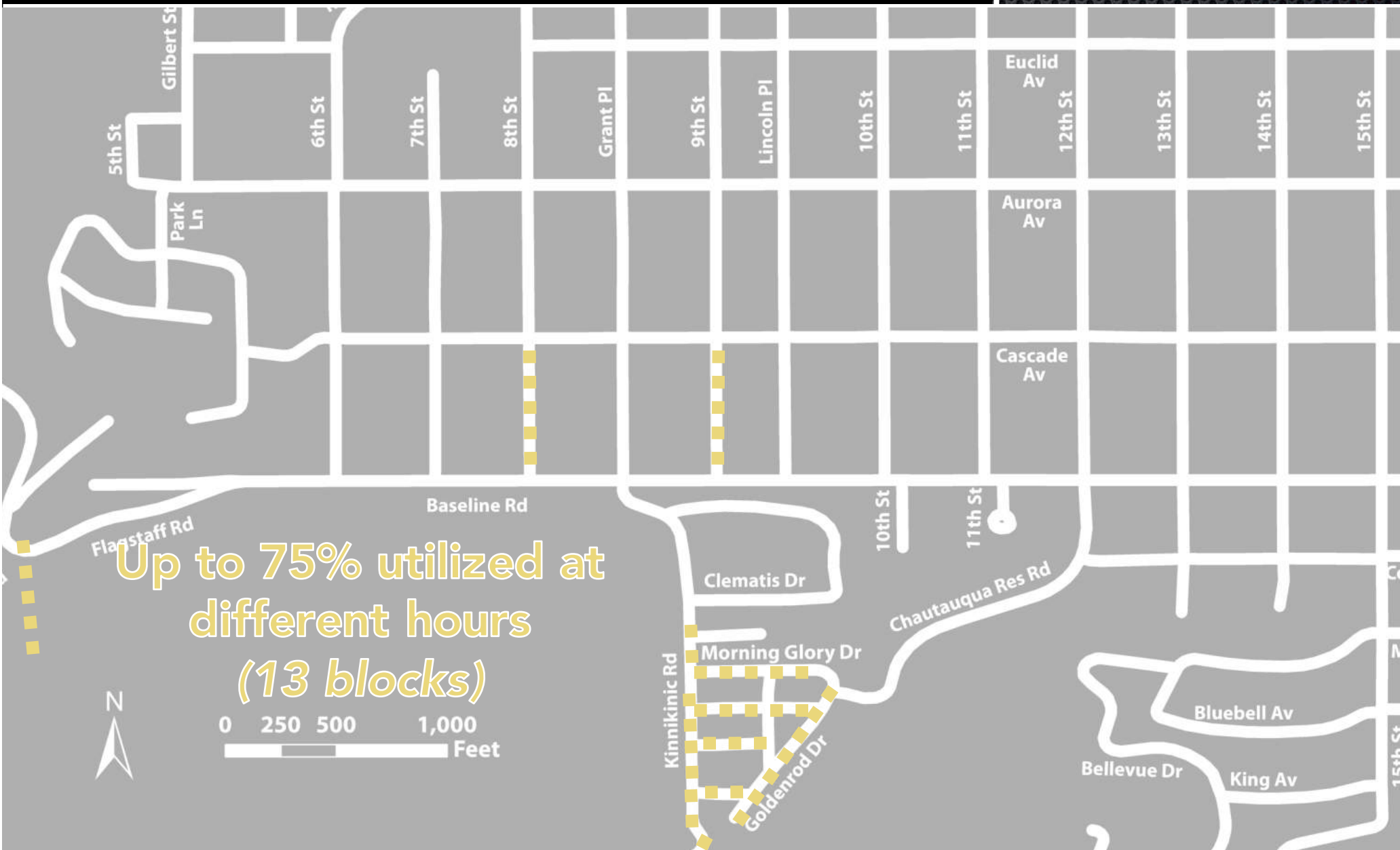
LESS THAN 50%



**10TH STREET
LOOKING
NORTH FROM
BASELINE**

Parking Study Results

Summer 2016 – 11 days of 8 hour field study



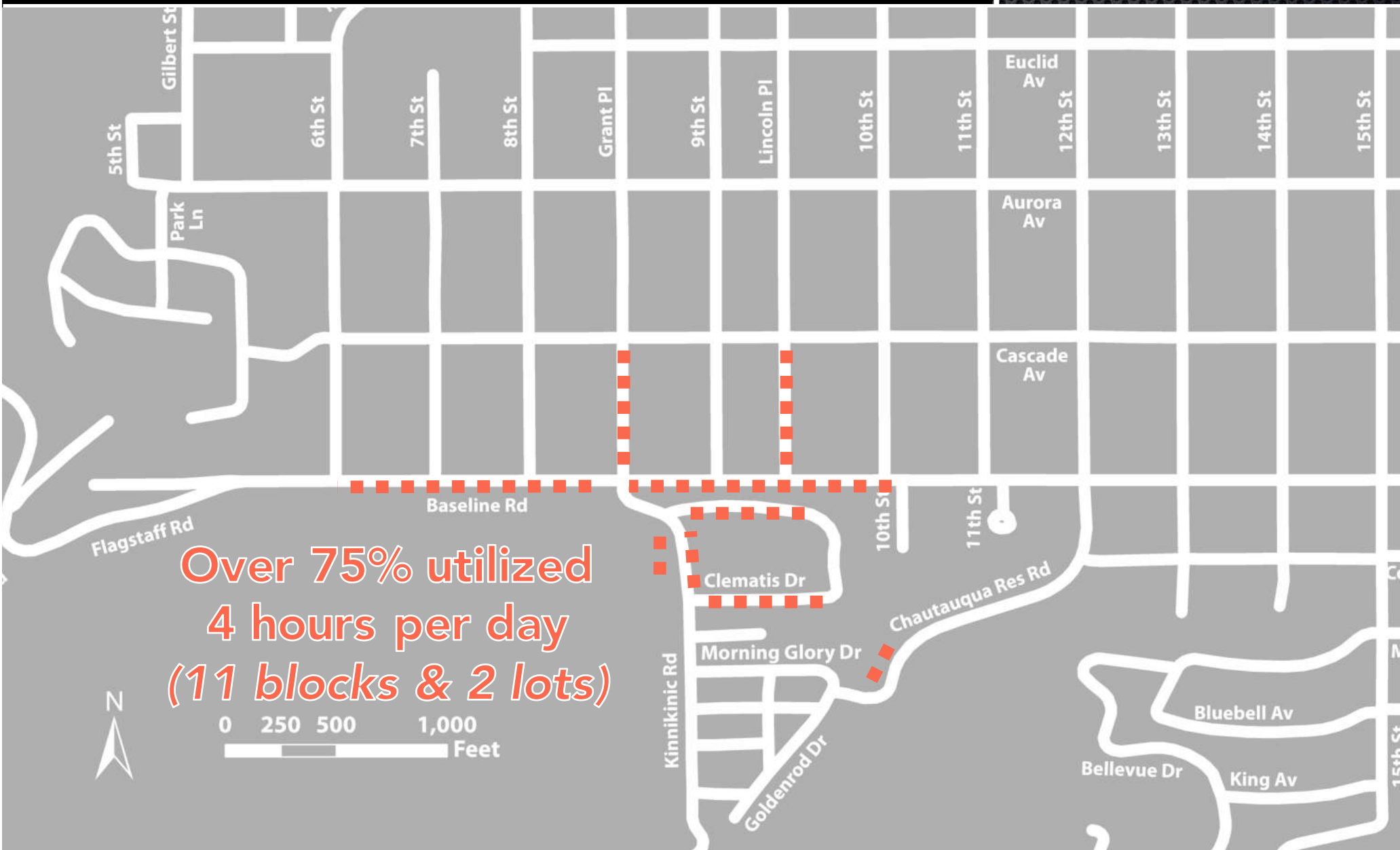
UP TO 75% SOME DAYS



**GREGORY CANYON
LOOKING NORTH**

Parking Study Results

Summer 2016 – 11 days of 8 hour field study



75% DURING 4 HOURS

**GRANT AVENUE LOOKING
NORTH FROM BASELINE**



Ridesharing Drop Off



Ridesharing Drop Off

RANGER PARKING LOT



People on Bikes

- 13% of CU and Naropa Students arrive by bicycle
- 3% of Boulder Residents arrive by bicycle
- Bike routes Columbine, Cascade, Lincoln, and 6th Street
- Climbing lane on Baseline Road



**LOWER RACKS
UNDERUTILIZED**



**UPPER RACKS
OVERUTILIZED**





**INFORMAL BIKE
PARKING**

HOP 2 Service

- 21 evenings of shuttle service to CCA events
- 100 to 500 passenger rides per event
- More details to follow at next CWG meeting



Shared Streets

- 56% of time cars are driving on road alone
- 35% of time people are walking (no cars)
- 9% of time people driving and walking are interact
- Vehicles are slowing near people walking
- Typical Group = 2



Thanks



Courtesy: City of Boulder Carnegie Library